DOCUMENT RESUME

ED 458 397 CE 082 544

AUTHOR Bingman, Beth; Stein, Sondra
TITLE Results That Matter: An Approach to Program Quality Using Equipped for the Future.
INSTITUTION National Center for the Study of Adult Learning and Literacy, Boston, MA.; National Inst. for Literacy, Washington, DC.
SPONS AGENCY National Inst. on Postsecondary Education, Libraries, and Lifelong Learning (ED/OERI), Washington, DC.
REPORT NO R01-1804-084-001-02
PUB DATE 2001-08-00
NOTE 36p.
CONTRACT R309B60002
AVAILABLE FROM For full text: http://www.nifl.gov/lincs/collections/eff/results_that_matter.pdf .
PUB TYPE Reports - Descriptive (141)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Adult Basic Education; Adult Development; *Adult Learning; Adult Literacy; Adult Students; Andragogy; Cognitive Psychology; Cognitive Style; Constructivism (Learning); Context Effect; Curriculum; *Curriculum Development; Demonstration Programs; Educational Improvement; *Educational Needs; *Educational Objectives; Educational Principles; Guidelines; *Literacy Education; Models; Program Development; Student Evaluation; Systems Approach; Teaching Methods; *Theory Practice Relationship
IDENTIFIERS Contextual Learning; *Equipped for the Future

ABSTRACT

The Equipped for the Future (EFF) initiative asked adult learners to describe the knowledge and skills needed to fulfill their roles as parents, citizens, and workers and identified these four purposes: to provide access to information; to give voice to their ideas and opinions, to take action to solve problems, and to provide a bridge to the future by enabling them to continue to learn. These needs were used to develop a model--called the EFF Quality Model--which is the subject of this publication. The model identifies critical elements in the process of system reform, including the following: (1) the tools EFF has created to facilitate system reform; (2) the research EFF has drawn upon to create those tools; (3) the program practices expected to be implemented as a result of the use of those tools; and (4) the short- and longer-term outcomes that represent the real goals of system reform. Program practices featured in the model include a purposeful and transparent approach to education, a contextualized approach to curriculum and instruction, a constructivist approach to teaching and learning, an approach to assessment based on cognitive science research on adult learning and the development of expertise, and a systematic approach to accountability and program improvement based on meeting student and national goals. (Contains 23 references.) (KC)

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Results That Matter

An Approach to Program Quality Using Equipped for the Future

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Results That Matter

An Approach to Program Quality Using Equipped for the Future

By Beth Bingman and Sondra Stein

NIFL
National Institute for Literacy

This publication was supported in part by the Educational Research and Development Centers Program, Award Number R309B60002, as administered by the Office of Educational Research and Improvement/National Institute of Postsecondary Education, Libraries and Lifelong Learning, U.S. Department of Education, through contract to Harvard University. The contents of this publication do not necessarily represent the positions or policies of the National Institute of Postsecondary Education, Libraries and Lifelong Learning; the Office of Educational Research and Improvement; or of the U.S. Department of Education, and you should not assume endorsement by the Federal Government.

Acknowledgements

In early 2000, the National Institute for Literacy (NIFL) invited the National Center for the Study of Adult Learning and Literacy (NCSALL) to partner with EFF staff in developing a plan for a comprehensive evaluation of the impact of Equipped for the Future. In order to answer the central question, "What does EFF implementation look like at the program level?" NCSALL researcher Beth Bingman and EFF National Director Sondra Stein formed a joint EFF/NCSALL working group composed of NCSALL Director John Comings; NCSALL researchers Hal Beder, Alisa Belzer, Marilyn Gillespie, Steve Reder, and Cristine Smith; and EFF Development Team members Brenda Bell, Lisa Levinson, Andy Nash, and Michele Perry. Over the period of a year this group developed a well-articulated picture of the kinds of changes in program practices and program outcomes that NIFL could expect to see as a result of using the EFF Framework and Standards.

This picture was not constructed out of whole cloth. Beth Bingman, Brenda Bell, and Michelle Perry were joined by Center for Literacy Studies (CLS) associates Olga Ebert and Aaron Kohring in mining the rich EFF database which included reports submitted over a two-year period from 26 programs that worked as EFF field development sites from 1998 to 2000, to help us refine the EFF Standards. The data provided a starting point for defining the changes that EFF could bring about in teachers, students, and programs.

To build broader consensus on this picture of what it looks like to do EFF we presented a "working draft" of our program model to state and local EFF partners at a national EFF meeting in December 2000. The feedback we received made clear that what we had articulated was, in fact, a model for program improvement using EFF—what we have begun to refer to as "the EFF Quality Model."

Following that meeting, Jim Ford, Judy Franks, Susan Joyner, Jane Knight, Kristin Kulongowski, and Denise Pottmeyer gave thoughtful feedback to Beth Bingman on how to make this guide useful to practitioners and state leaders.

Donna Curry, Charlotte Duncan, Susan Green, Alice Johnson, and Ronna Spacone all reviewed drafts of the manuscript, suggesting edits that helped to make the prose clearer. Mary Revenig of DesignWorks once again worked her magic, finding just the right design to present this publication.

We thank all of these partners for their contributions to this publication.

Beth Bingman
Sondra Stein

UT PUBLICATION NO.: R01-1804-084-001-02
AUGUST 2001

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Introduction

Equipped for the Future (EFF) was launched by asking adult learners to describe the knowledge and skills needed to fulfill their roles as parents, citizens, and workers. Their responses provided the start for building a new framework for adult literacy based on national policy goals and adults' own goals for learning. This is why EFF is described as a "customer-driven" initiative.

The quotes on this page illustrate the four underlying purposes for literacy identified by adult students participating in the EFF research:

- to provide access to information so they can orient themselves in the world,
- to give voice to their ideas and opinions,
- to take action to solve problems, and
- to provide a bridge to the future by enabling them to continue to learn.

EFF seeks to create a system that enables adults to achieve these four purposes in their roles as parents, citizens, and workers by providing

- a clear set of standards of what adults need to know and be able to do to achieve their goals;
- a common framework that adult education teachers and programs can use to link curriculum and instruction, assessment, and program improvement;
- a common language that can align all parts of the lifelong learning system; and
- a common definition of results that can be used to support program and system accountability.

From the beginning, EFF has aimed to improve the quality of the adult literacy system so that adults have access to programs that help them develop the knowledge and skills they need to accomplish their goals in life. As a standards-based system reform initiative, EFF's approach to this goal is to create standards that enable us to align program and system practices—curriculum, instruction, assessment, and reporting—with the important results defined by adult learners.

Over the past year, the EFF Team has worked with evaluation and research specialists associated with the National Center for the Study of Adult Learning and Literacy (NCSALL) to develop consensus on a model that makes explicit the process of system reform using EFF Standards. This model—called the EFF Quality Model—is the heart of this publication. It identifies critical ele-

■

"I want to be able to understand my child's teacher, and when I go to the mall and other places, I want to be able to understand everything."

Milagros Medina
Sanford, Florida

■

"Literacy is the power and the knowledge to be able to look at something and know what it says or means and to be able to express your feelings on paper by writing."

Amy Ebenal
Bellingham, Washington

■

"I think literacy is knowing what you have to do to make the world better and helping in any way you can."

Terrie Bragg
Gautier, Mississippi

■

"Times are hard and getting harder; education is the way to go, the road to go down. Without it you would be nowhere, your road will be long but not leading anywhere."

Lucille Gallaher
Effingham, Illinois

ments in the process of system reform including

- the **tools** EFF has created to facilitate system reform;
- the **research** EFF has drawn upon to create those tools;
- the **program practices** we expect to see as a result of using those tools—for teaching and learning, for measuring and reporting progress, and for improving a program's ability to achieve desired results;
- the **short-term outcomes** we expect to see in students, in teachers, and in programs; and
- the **longer term outcomes** that represent the real goals of system reform:
  —an adult learning system that focuses on assisting adults to meet their goals and purposes and
  —significant changes in the ability of adults who come through that system to fully exercise their rights and responsibilities as workers, parents and family members, and citizens and community members.

In many ways, this Quality Model represents our vision of what it looks like to do EFF—and the kinds of outcomes that will result from doing EFF. In building the model, we began with the theory and research that is the foundation of EFF. This includes key strands of research that define effective practices as well as data from field sites that have been part of the early implementation of EFF. Drawing from this body of research and practice, the Quality Model defines what we hope and expect to see as a result of EFF implementation. As we undertake more formal evaluation of EFF, we will see if our expectations are met.

The National Institute for Literacy (NIFL) is publishing *Results That Matter: An Approach to Program Quality Using Equipped for the Future* to share our vision of EFF system reform more publicly and to provide states and programs interested in EFF with some guideposts for thinking about what it means to "do EFF" at the program level. The EFF Quality Model is included as a foldout in the center of this guide. Each section of the guide corresponds with a section of the Quality Model.

Readers will note that the program practices and key strands of educational theory and research described in this model are not unique to EFF. A program can be purposeful and take a research-based approach to instruction and assessment without using EFF. However, because EFF tools have been explicitly constructed to facilitate these practices, they make it easier for teachers and programs to more intentionally and systematically create the kinds of learning opportunities that equip adults for the future.

This publication focuses primarily on program-level practices. System reforms that support programs implementing these processes are discussed in Chapter 5 of *Equipped for the Future Content Standards: What Adults Need to Know and Be Able to Do in the 21st Century* (Stein, 2000).

A set of *EFF Research to Practice Notes* (Gillespie, in press) designed to accompany the Guide provides a more extensive discussion of the research and theory underlying EFF. The *Notes* also include multiple examples of effective implementation of this theory in EFF programs and classrooms.

The Goals of Equipped for the Future

Equipped for the Future began in 1993 as an effort to define Goal 6 of the National Educational Goals adopted by President George Bush and the 50 governors in 1989. Goal 6 provided that

> **Every adult American will be literate and possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.**

For the most part, the adult learning system in the United States does not focus on the broad range of knowledge and skills needed to achieve Goal 6, nor does it measure progress toward achieving Goal 6. Eighty-five million adults in the United States (more than 40 percent) have literacy skills below Level 3 of the National Adult Literacy Survey. This means that, while they have the ability to read and write, they may not have the range of skills necessary to accomplish important goals in their lives. This is the problem EFF addresses.

The EFF Standards for Adult Literacy and Lifelong Learning define "the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship" by answering the question:

> *What do adults need to know and be able to do in order to carry out their roles and responsibilities as workers, parents and family members, and citizens and community members?*

The goals of Equipped for the Future will be met when the nation's adult learning system focuses on and assesses progress toward Goal 6 and the components of that system are aligned to address the full range of skills and knowledge that adults need to exercise their rights and responsibilities as family members,

Goals

National Education Goal 6
Every adult American will be literate and possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.

Problem Statement
85 million adults have literacy skills at NALS levels 1 and 2, limiting their ability to achieve Goal 6. The nation's adult learning system does not focus clearly on achieving Goal 6, does not address all that is needed to achieve this goal, and does not measure progress or report results on Goal 6.

Goal for EFF
The components of the nation's adult learning system will be aligned to focus on the range of skills and knowledge that adults need to
- **Access Information;**
- **Express Their Own Ideas and Opinions;**
- **Take Independent Action;**
- **Keep Up With a Changing World; and**
- **Exercise Their Rights and Responsibilities as Family Members, Workers, and Community Members.**

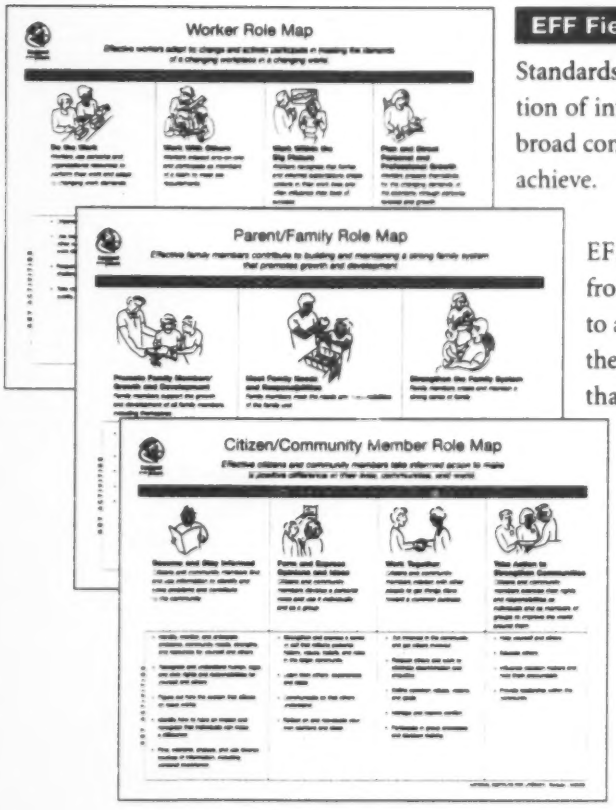
workers, and community members and accomplish the purposes of

- accessing information,
- voicing their own ideas and opinions,
- taking independent action to solve problems, and
- creating a bridge to the future.

The goals of EFF are more fully presented in Chapters 1 and 2 of *Equipped for the Future Content Standards: What Adults Need to Know and Be Able to Do in the 21st Century.*

The EFF Initiative

How can EFF meet its goals? The tools of the EFF initiative include three components: the EFF Content Framework, the EFF Assessment Framework, and a variety of supports for EFF implementation. These components have been developed through a process of field-based research and development.



EFF Field Research 1994–2004

Standards-based system reform begins with a common definition of intended results. EFF field research has sought to build a broad consensus on what results are important for our system to achieve.

EFF research began in 1994 when 1,500 adult students from 151 adult education programs in 34 states responded to a request to write about what National Goal 6 meant to them. Analysis of their essays led to defining four purposes that adults seek to achieve by returning to education. *Equipped for the Future: A Customer-Driven Vision for Adult Literacy and Lifelong Learning* (Stein, 1995) reported on this research.

The next step in the development of EFF was mapping what adults need to be able to do to be effective in their roles as parents, citizens, and workers. Nine organizations across the country engaged with more than 1,100 stakeholders, who participated in advisory groups, focus groups, structured feedback sessions, and practitioner and student inquiry groups in a

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process that took two years. At the end of that time, the data from this process were synthesized into three "role maps."

Thirteen Common Activities that are important to all three roles were identified from the Key Activities in the Role Maps. Drawing from a database of skills and knowledge, the "generative skills," which support effective performance of these Common Activities, were identified. Draft Content Standards were developed and, beginning in 1998, 25 programs in 12 states used these draft standards and other elements of the EFF Content Framework in a field-review process that informed the development of the revised 16 EFF Standards.

13 Common Activities

- **Gather, Analyze, and Use Information**
- **Manage Resources**
- **Work Within the Big Picture**
- **Work Together**
- **Provide Leadership**
- **Guide and Support Others**
- **Seek Guidance and Support From Others**
- **Develop and Express Sense of Self**
- **Respect Others and Value Diversity**
- **Exercise Rights and Responsibilities**
- **Create and Pursue Vision and Goals**
- **Use Technology and Other Tools to Accomplish Goals**
- **Keep Pace With Change**

Another round of field research was conducted at 10 sites to review the revised standards. Final revisions were made, based on this work and a review of the standards by a panel of 45 experts in standards and assessment. *Equipped for the Future Content Standards: What Adults Need to Know and Be Able to Do in the 21st Century* was published in January 2000.

With the elements of the EFF Content Framework in place, EFF research had produced a consensus definition of important results. The field research has now shifted to focus on developing an Assessment Framework that will define multiple levels of performance based on the standards and identify tools that meet a range of purposes for assessment.

The EFF research is more fully described in the *Equipped for the Future Research Report: Building the Framework, 1993–1997* (Merrifield, 2000) and in *Equipped for the Future Content Standards: What Adults Need to Know and Be Able to Do in the 21st Century.*

EFF Tools for Change

As an initiative intended to bring about change, EFF provides three primary tools to support program change and system reform:

- the Content Framework;
- the Assessment Framework; and
- the training, technical assistance, and materials that are provided through the EFF National Center at the University of Maine-Orono.

The basic elements of these primary tools are described here. For more detail, see EFF publications and the EFF website (www.nifl.gov/lincs/collections/eff).

The **EFF Content Framework** defines the common results the adult learning system aims to achieve. It includes

- The **Four Purposes for Learning** that adult students identified as reasons for returning to education:
  - — to gain *Access* to information and resources to orient themselves in the world,
  - — to give *Voice* to ideas and opinions with the confidence that they will be heard,
  - — to take *Independent Action* to solve problems and make decisions, and
  - — to keep learning to build a *Bridge to the Future* in a rapidly changing world.

- The **Role Maps** define key activities necessary to fulfill the three primary adult roles:
  - — Effective citizens and community members take informed action to make a positive difference in their lives, communities, and world.
  - — Effective parents and family members contribute to building and maintaining a strong family system that promotes growth and development.
  - — Effective workers adapt to changes and actively participate in meeting the demands of a changing workplace in a changing world.

Each Role Map identifies key activities that are critical to carrying out the responsibilities associated with the role and performance indicators that describe key characteristics of effective performance of each activity.

- The **Common Activities** are 13 activities that overlap the primary adult roles of citizen and community member, parent and family member, and worker. Teachers and students use the Common Activities to find a common focus for instruction that supports learning across individual goals and participants' lives. Teachers and students also use the Common Activities to explore the potential transfer of skills and abilities across the primary adult roles. The following list comprises the 13 Common Activities.
  - — Gather, Analyze, and Use Information
  - — Manage Resources
  - — Work Within the Big Picture
  - — Work Together
  - — Provide Leadership
  - — Guide and Support Others
  - — Seek Guidance and Support From Others

— Develop and Express Sense of Self
— Respect Others and Value Diversity
— Exercise Rights and Responsibilities
— Create and Pursue Vision and Goals
— Use Technology and Other Tools to Accomplish Goals
— Keep Pace with Change

- The **EFF Content Standards** provide the central tool for using EFF to align instruction with adult goals and purposes. These 16 Standards define the core knowledge and skills adults need to effectively carry out activities in their roles as family members, community members, and workers and to accomplish the four purposes for learning.

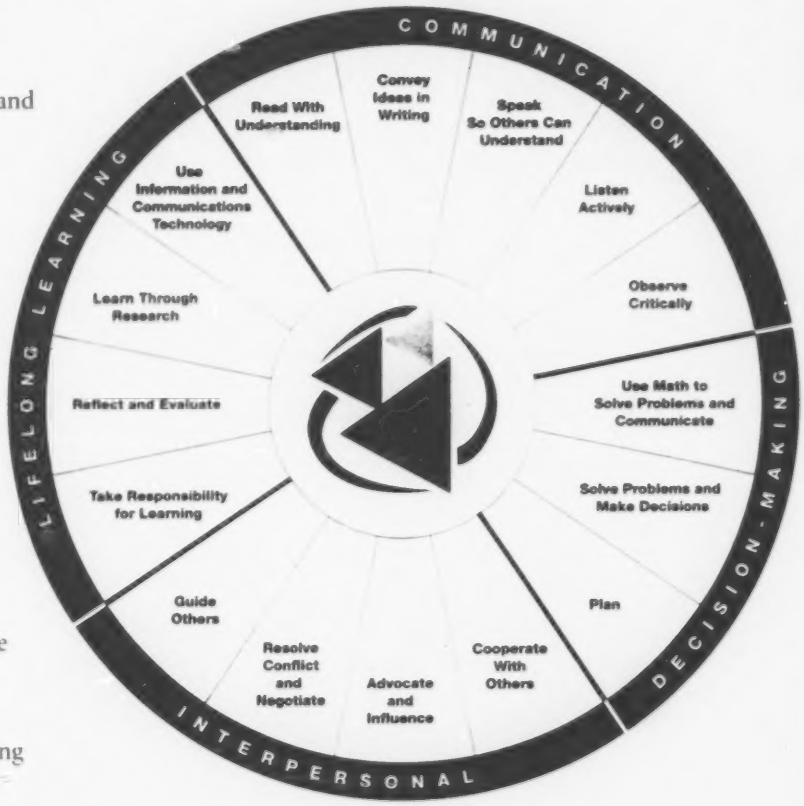
The 16 Standards are organized in four categories of skills:

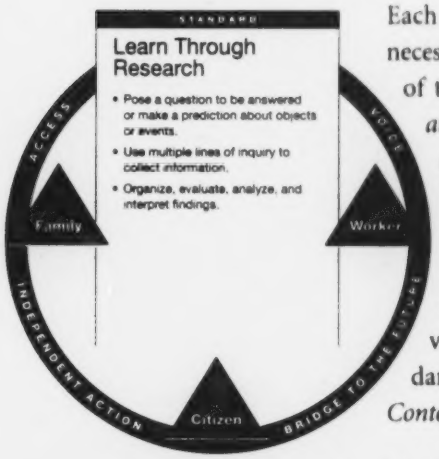
Communication Skills
— Read With Understanding
— Convey Ideas in Writing
— Speak So Others Can Understand
— Listen Actively
— Observe Critically

Decision-Making Skills
— Solve Problems and Make Decisions
— Plan
— Use Math to Solve Problems and Communicate

Interpersonal Skills
— Cooperate With Others
— Guide Others
— Advocate and Influence
— Resolve Conflict and Negotiate

Lifelong Learning Skills
— Take Responsibility for Learning
— Learn Through Research
— Reflect and Evaluate
— Use Information and Communications Technology





Each standard is composed of the essential "components of performance" necessary for applied performance of that skill. For example, the components of the standard "Learn Through Research" include: *Pose a question to be answered or make a prediction about objects or events; Use multiple lines of inquiry to collect information; and Organize, evaluate, analyze, and interpret findings.* The standards provide students and teachers with a clear definition of the knowledge and skills that underlie effective performance. This definition can be used to guide planning, instruction, and assessment of learning. The EFF Skills Wheel provides a convenient visual reminder of the full "circle of skills" represented by these 16 Standards. The standards themselves are fully described in Chapter 3 of *EFF Content Standards* (Stein, 2000).

The **EFF Assessment Framework** is being developed from 2000–2004 through field-based research and an expert validation process. When completed, the framework will enable us to define levels of performance along a continuum for each standard and to identify or, if necessary, develop assessment tools that can be used to measure progress. The Assessment Framework is designed to support assessment for multiple purposes including: needs assessment, assessing progress in the classroom, defining achievements for student credentialing and program accountability.

- Eight **Guiding Principles** set criteria for the development of the Assessment Framework. They stipulate that the framework must
  - — Address multiple purposes for assessment.
  - — Support a multidimensional, flexible, and systematic approach to assessment.
  - — Address learning over a lifetime.
  - — Address a single continuum of performance.
  - — Communicate clearly what an adult can do.
  - — Be explicitly linked to key external measures of competence.
  - — Result from a national consensus-building process that assures portability of credentials.
  - — Maintain a strong customer focus.

- Four key **Dimensions of Performance** that are consistent with these principles are being used to define progress along a continuum for each standard. These dimensions are
  - — Content and structure of knowledge base.
  - — Fluency of performance.

— Independence of performance.
— Range of conditions for performance.

Once the performance continuum for each standard is defined and validated, EFF will be able to provide a rich body of performance descriptors based on these dimensions for each level in the U.S. Department of Education's National Reporting System (NRS). EFF will also supplement existing assessment tools by providing a range of standards-based validated performance tasks that can be used to assess transition from level to level of the NRS. EFF hopes to eventually develop an EFF Certificate of Readiness for Work, which will be based on EFF Standards and entry-level work requirements.

Support for Implementation of EFF

The EFF National Center at the University of Maine-Orono was created in 1999 to develop a system of support for EFF implementation that includes:

- a national network of certified EFF trainers,
- materials and products to support EFF adoption and use, and
- customized training and technical assistance for key customer systems.

National Network of Certified Trainers. The EFF Training Certification System has been developed to assure that states and organizations implementing EFF have access to high-quality training and technical assistance services. In order to develop and support a national network of certified EFF Trainers, the National Center provides periodic training institutes, mentoring to support trainers' development of necessary knowledge and skills, and assessment of progress within a performance-based certification system. Movement through the certification system from novice to intermediate to advanced (the point at which trainers are certified) is individually paced and is dependent on the trainer's ability to demonstrate proficiency in providing assistance to programs and states in implementing EFF.

Materials. The Center develops, packages, and disseminates a wide range of materials to help practitioners, programs, organizations, and states use EFF in their instructional contexts and systems. These materials include two quarterly newsletters, the *EFF Voice* and *HOT TOPICS*. All EFF materials are available in print and on the EFF web site in pdf downloadable files. The web site is: http://www.nifl.gov/lincs/collections/eff/eff.html

Customized Assistance. The Center also offers strategic planning for EFF implementation, helping customers clarify their goals and objectives and design a step-by-step implementation plan that puts in place the systems and supports necessary to achieve their goals.

Educational Theory and Research

Equipped for the Future has, from its inception, been constructed using an iterative process of gathering information from the field, processing it in light of both research and practice, presenting it back to key stakeholders, and revising components in response to feedback. Using this process, EFF has developed a conceptual framework through which the field can understand, analyze, predict, and explain their practice. The Equipped for the Future Quality Model presents five key principles that summarize the theoretical foundations of EFF. These five principles have been shaped by a convergence of practice and recent research in developmental psychology, cognitive psychology, neuroscience, adult education, and other fields. These theoretical principles include:

RESEARCH PRINCIPLE 1

A purposeful and transparent approach to education

The EFF focus on purpose is framed by Goal 6 of the National Education Goals. The purposes on which EFF focuses are not time-specific accomplishments but "more fundamental purposes that express social and cultural meaning and the significance of these accomplishments for individuals engaged in defining themselves as competent actors in the world" (Stein, 1995, p. 9). A broad, consensus-building process has enabled EFF to embed a skills-based approach to adult learning within a purpose-based framework grounded in how adults expect literacy—and, more broadly, education—to prepare them to fulfill their roles as parents, citizens, and workers. This concept of purposeful learning is supported by research in cognitive and developmental psychology (Bransford, Brown, & Cocking, 1999; Kegan, 1994; Lambert & McCombs, 1998; Lave & Wenger, 1991; Scribner, 1988) that reveals that adults undertake cognitive tasks "not merely as ends in themselves but as a means for achieving larger objectives and goals" and "to satisfy purposes that have meaning within their community" (Scribner, 1988). The EFF Framework provides both a language and a process for making those purposes transparent to students and their communities.

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"We undertake cognitive tasks not merely as ends in themselves but as a means for achieving larger objectives and goals...."

— Scribner, 1988

RESEARCH PRINCIPLE 2

A contextualized approach to curriculum and instruction

By embedding education in the context of adults' key roles as parents, citizens, and workers, EFF seeks to connect learning to the demands of everyday life. This approach is based on research that shows that school-based abilities are not necessarily the same as work-based or family-based abilities (Carnevale & Porro, 1994; Resnick, 1989). Learning is a function not only of the activity but also of the context and culture in which it occurs (Lave & Wenger, 1991). In EFF, the focus is on active application of knowledge and skills. Learning that is situated in authentic contexts allows for the kinds of social interaction that are a critical component of learning as well as for the acquisition of skills not typically taught in traditional academic settings such as problem solving, communication, planning, and conflict resolution. EFF also provides a framework through which students can reflect on what they have learned and makes explicit how they might transfer what they have learned in one context to other life roles and contexts. This process is based on research that shows that transfer is most likely to occur when students know and understand underlying principles that can be applied to problems in new contexts and are mindful of themselves as both students and thinkers (Bransford et al., 1999; Donovan, Bransford, & Pellegrino, 1995; Lambert & McCombs, 1998).

▼

"The results show that controlling for all other variables...the degree of authenticity in the activities and materials used in adult literacy instruction was significantly related to the likelihood that adult literacy students in those classes will report change in frequency and/or type of out-of-school literacy practices."

— Purcell-Gates, Degener, Jacobson & Soler, 2000

RESEARCH PRINCIPLE 3

A constructivist approach to teaching and learning

EFF interprets learning "as not simply the acquisition of skills and knowledge but the process of assigning meaning to experience." This perspective is reflected in an emerging body of research often called "constructivism" (see Bransford et al., 1999; Donovan et al., 1999; Fosnot, 1992; Lambert & McCombs, 1998). Constructivism is a theory of learning and also of knowing. It has led to a deeper understanding of education as "an internal process in which the student uses prior knowledge and experience to shape meaning and construct new knowledge" (Lambert & Walker, 1995). In contrast to a behaviorist focus on instruction that elicits individual responses that are immediately reinforced, cognitive theory, on which constructivism is based, is concerned with how to help students become more effective processors of information. Effective learning involves activating prior knowledge, connecting new knowledge to previous experience, applying what is learned in real contexts, and linking that knowledge to the "big picture."

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"The learning of complex subject matter is most effective when it is an intentional process of constructing meaning from information and experience."

— Mayer, 1998

Goals

National Education Goal 6

Every adult American will be literate and possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.

Problem Statement
85 million adults have literacy skills at NALS levels 1 and 2, limiting their ability to achieve Goal 6. The nation's adult learning system does not focus clearly on achieving Goal 6, does not address all that is needed to achieve this goal, and does not measure progress or report results on Goal 6.

Goal for EFF

The components of the nation's adult learning system will be aligned to focus on the range of skills and knowledge that adults need to

- **Access Information;**
- **Express Their Own Ideas and Opinions;**
- **Take Independent Action;**
- **Keep Up With a Changing World; and**
- **Exercise Their Rights and Responsibilities as Family Members, Workers, and Community Members.**

EFF Initiative

EFF Field Research 1994–2004

Content Framework
- 4 Purposes for Learning
- 3 Role Maps
- 13 Common Activities
- 16 Content Standards

Assessment Framework
(in development)
- Guiding Principles
- Dimensions of Performance
- Performance Levels for Each Standard
- Benchmark Tasks

Support for Implementation
- Materials
- Training/Staff Development
- Technical Assistance

Educational Theory and Research

- **A purposeful and transparent approach to education**
- **A contextualized approach to curriculum and instruction**
- **A constructivist approach to teaching and learning**
- **An approach to assessment based on cognitive science research on adult learning and the development of expertise**
- **A systematic approach to accountability and program improvement based on meeting learner and national goals**

Equipped for the future

A Purposeful and Transparent Approach to Education

Using the EFF Framework to communicate the direct relationship between what people know and what they can do, so that (a) adults can make informed decisions about what they need to learn to achieve their goals and purposes and (b) the stakeholders in education can see how well education programs serve individual and community goals.

- Students use the EFF Framework to clarify their purposes for learning and to identify strengths and gaps in the skills and knowledge necessary to achieve their purposes and goals.
- Teachers use the EFF Framework to structure an ongoing goal-setting, needs assessment dialogue with students.
- Teachers use EFF as a common language to discuss how their instructional practice supports attainment of student goals and purposes.
- Programs use the EFF Framework to communicate how education contributes to community goals.

The Equipped for the Future Approach to Quality

A Model for Program Improvement Using EFF

A program (staff, students, and volunteers) implementing Equipped for the Future takes

EFF Program Practices

A Contextualized Approach to Curriculum and Instruction

Using the EFF Framework to create and take advantage of opportunities for students to learn and practice skills in real life contexts.

- Teachers and students use the EFF Framework to construct contextualized learning opportunities that focus on the development and practice of skills students need to carry out activities and accomplish purposes in their lives.
- Teachers use the EFF Framework to integrate "found lessons" that arise from in-class or out-of-class student needs into an overall learning plan.
- Students use the EFF Framework to identify skills learned and practiced through real-world learning activities.

A Constructivist Approach to Teaching and Learning

Using the EFF Framework to reflect on prior knowledge and begin to develop more complex ways of constructing meaning and understanding experience.

- Teachers and students use the EFF Framework to identify, reflect on, and revise their own mental models of adult role performance.
- Students use the EFF Framework to examine and clarify prior knowledge in order to construct new meaning.
- Teachers use the EFF Framework to create opportunities for students to reflect on and monitor their own learning.

An Approach to Assessment Based on Cognitive Science

Using the EFF Standards and Dimensions of Performance to develop tools and approaches that teachers and students can use to assess progress and results.

- Teachers and students use the EFF Assessment Framework to identify the ways in which students are progressing along a continuum toward expertise within a skill and across skills.
- Teachers use the EFF Assessment Framework to construct assessmer tasks, rubrics, and other tools for in-program assessment purposes.
- Students use results of performanc assessments to monitor their progress and revise their learning goals.
- Students identify and share evidenc of how they use EFF skills to achiev goals/purposes in their lives.

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AUGUST 2001

A Systematic Approach to Program Improvement

Using data about student progress toward EFF Standards and toward students' own learning goals to monitor and improve performance and results across the program.

- Programs put in place a system to collect and analyze data about student progress in relation to EFF Standards and student learning goals.
- Programs use student progress data to periodically review program components.
- Programs use results of periodic review of data to revise program goals.

Outcomes

Outcomes Within Programs

Students

- Articulate what they know and are able to do in relationship to their goals.
- Demonstrate increased proficiency in the use of multiple skills.
- Persist in program participation until personal learning goals are met.
- Transfer learning from the classroom to the rest of life.
- Feel increased sense of ownership of their learning and in the program.

Teachers

- Reflect on their own learning goals.
- Change their planning processes to focus on learner goals.
- Reflect on their own mental models of adult roles, including that of teacher.
- Structure instruction using learning theory.
- Use assessment results to evaluate their lessons.

Programs

- Set goals that reflect learner and national goals.
- Structure curriculum around real-life contexts related to students' goals.
- Ensure that instructional practices promote meaning-making as well as development of skills and knowledge.
- Align program components (intake, orientation, counseling, teaching, assessment, staff development) with program goals.
- Describe success in terms of real-world results in students' lives.
- Continuously review program policies and results to assure that they reflect learner needs and goals.
- Form community partnerships that reflect common purposes and goals.
- Use EFF Framework in teacher hiring and evaluation.
- Support collaborative staff teams.

Longer Term Outcomes

Adults

- Achieve the level of expertise needed to perform effectively and to their own satisfaction in their primary life roles at work, in the family, and in the community.
- Recognize new learning needs and are comfortable in taking advantage of learning opportunities.
- Use what they learn to make changes in their lives and to keep up with change.

System Impact

All adults will have access to services that assist them in gaining skills required to

- Access information
- Express their own ideas and opinions
- Take independent action
- Keep up with a changing world.
- Exercise rights and responsibilities as family members, workers, and community members.

RESEARCH PRINCIPLE 4

An approach to assessment based on cognitive science research on adult learning and the development of expertise

The EFF Content Standards focus on the application of skills and knowledge: what adults need to know and be able to do in order to use knowledge and skills to carry out daily activities and accomplish meaningful purposes in their lives. The EFF Assessment Framework focuses on dimensions of performance that distinguish novice from expert applications of knowledge and skill. Based on cognitive science research on the development of expertise, these dimensions describe a continuum of performance, stretching from novice to expert. Adults move along the continuum as their content knowledge in a given standard area increases and they are able to organize that knowledge in more complex ways. This, in turn, enables them to perform more fluently and more independently in a widening range of situations (Stein, 2000).

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"Contemporary theories of learning and knowing emphasize the way knowledge is represented, organized, and processed in the mind.... This body of knowledge strongly implies that assessment practices need to move beyond a focus on component skills and discrete bits of knowledge to encompass the more complex aspects of student performance."

— Pellegrino, Chudowsky, & Glaser, 2001

As work on the EFF Assessment Framework moves forward, EFF is drawing on a growing body of research in the cognitive sciences about how people develop understanding, how they reason and build structures of knowledge, which thinking processes are associated with competent performance, and how knowledge is shaped by social context. These findings, combined with developments in the science and technology of assessment, suggest directions for revamping assessment to enable us to better capture the complexity of cognition and learning (Ananda, 2000; Pellegrino et al, 2001; Lambert et al., 1995; Marzano, 1996).

RESEARCH PRINCIPLE 5

A systematic approach to accountability and program improvement based on meeting student and national goals

EFF provides a framework through which learner assessments and program evaluation both can be aligned with the broad goals and purposes that drive individual learning and national policy. Using continuous improvement approaches to quality management that focus attention on how well every aspect of an organization contributes to achievement of desired results (Levesque, Bradby, & Rossi, 1996; Stagg, 1992), programs can develop a systematic approach to collecting data on results and using it to continuously improve program practices. It is our intention to create a set of tools based on this EFF Quality Model that supports such continuous program improvement.

Program Practices

The EFF Quality Model outlines five Program Practices that reflect the theoretical foundations of EFF. These Program Practices provide guideposts by which programs, teachers, students, and their communities can assess their implementation of the EFF Framework. They help practitioners to better answer the questions: "What does it mean to practice EFF?" and "What does EFF implementation look like in action?"

Each Program Practice is accompanied by examples that illustrate ways that the practice might be implemented. As more and more programs integrate EFF they will develop new approaches toward implementing these five practices.

PROGRAM PRACTICE 1

A purposeful and transparent approach to education

In a program implementing Equipped for the Future, participants (staff, students, and volunteers) are intentional about using the EFF Framework to communicate the direct relationship between what people know and what they can do.

This program practice addresses questions of why provide and participate in adult education. Students, staff, and programs use the EFF Framework to clarify what they need to learn and teach and how their program goals connect to individual and community goals. This helps adults make informed decisions about what they need to learn to achieve their purposes. It also helps education programs communicate to stakeholders about how their programs contribute to community goals. Below are some examples of how programs take a purposeful approach to education:

- **Students use the EFF Framework to clarify their purposes for learning and to identify strengths and gaps in the skills and knowledge necessary to achieve their purposes and goals.**
  Programs often use the EFF Framework to structure a student orientation process. As students begin to clarify their purposes for learning, they use the framework to help them to think more deeply about why they want to achieve a specific goal. They might consider what difference getting a GED could make in their roles as worker, parent, and community member. Students also look at role maps to reflect on which aspects of their roles they perform well and which need work. They use the standards to identify their strengths and gaps in the skills and knowledge they need to achieve their purposes.

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Achieving the highest levels of performance requires a well-executed approach to organizational and personal learning. Organizational learning includes both continuous improvement of existing approaches and adaptation to change, leading to new goals and/or approaches. [Such an approach] has several important characteristics:

- **It has clear goals regarding what to improve;**
- **It is fact-based, incorporating measures and/or indicators;**
- **It is systematic, including cycles of planning, execution, and evaluation; and**
- **It focuses primarily on key processes as the route to better results.**

— Malcolm Baldrige Education Criteria (1998)

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"For a brief, intensive employment-oriented program like ours, EFF's main values have been these: (a) it puts instructors who are responsible for various curriculum elements on the same page, giving greater unity to our training curriculum; (b) it helps students appreciate the skills they already possess and utilize in their daily lives; (c) it helps place everything they learn here, including how to pass the GED examination, in a larger context applicable to their lives as workers, family members and citizens; and (d) it encourages them to take far more responsibility for their own learning, as the Skills Wheel suggests they must."

— David Hamilton

- **Teachers use the EFF Framework to structure an ongoing goal-setting/needs-assessment dialogue with students.**
  The various components of the Framework facilitate teacher-student conversations about learning goals and needs. The Purposes for Learning and Role Maps are particularly useful in setting and revising goals, while the Skills Wheel and components of the standards help clarify learning needs.

- **Teachers use EFF as a common language to discuss how their instructional practice supports attainment of student goals and purposes.**
  Sometimes teachers have difficulty talking with each other about what they are doing because they mean different things by the words they use to describe what they do. Using the EFF Framework gives teachers a common language in which to discuss their practice. EFF helps them to focus on broad purposes and goals and to find common ground across subject areas.

- **Programs use the EFF Framework to communicate how education contributes to community goals.**
  Programs use the Role Maps and Skills Wheel to communicate what they are accomplishing to others in the community. This helps build investment from the community, including employers who might hire students.

PROGRAM PRACTICE 2

A contextualized approach to curriculum and instruction

In a program implementing Equipped for the Future, participants (staff, students, and volunteers) are intentional about using the EFF Framework to create and take advantage of opportunities for students to learn and practice skills in real life contexts.

This program practice is about what is addressed in an EFF classroom. Rather than learning decontextualized facts and skills, students take part in real-world activities during which they build the skills and content knowledge they need to meet their goals.

- **Teachers and students use the EFF Framework to construct contextualized learning opportunities that focus on the development and practice of skills students need to carry out activities and accomplish purposes in their lives.**
  Sometimes classroom teachers, trying to take a student-centered approach to lesson planning, feel overwhelmed by the diversity of student learning

goals. The Role Maps and Common Activities provide tools for framing learning activities that address multiple student needs and goals.

- **Teachers use the EFF Framework to integrate "found lessons" that arise from in-class or out-of-class student needs into an overall learning plan.**
  Teachers find the framework gives them a context within which they can build on issues students bring to class and incorporate these issues into an overall learning plan rather than viewing these issues as "distracters" that take learning off course.

- **Students use the EFF Framework to identify skills learned and practiced through real-world learning activities.**
  Teachers and students use the Skills Wheel to explicitly reflect on what they learn in contextualized learning activities. The Role Maps and Common Activities help teachers create links between activities and help students see how they can transfer what is learned in the context of one life role to another.

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"Learners are not always able to readily identify what they are learning when using a contextual approach. Teachers use the EFF Skills Wheel to help students identify what they have learned. This approach has been particularly useful in helping learners solve difficulties in their lives. The teachers have been able to use the Skills Wheel to help break the challenge into manageable pieces and prioritize. In this way, learners have been able to experience increased success in resolving personal difficulties while identifying skills they possess and need to develop."

— Robin Stanton

PROGRAM PRACTICE 3

A constructivist approach to teaching and learning

In a program implementing Equipped for the Future, participants (staff, students, and volunteers) are intentional about using the EFF Framework to reflect on prior knowledge and begin to develop more complex ways of constructing meaning and understanding experience.

This program practice addresses the how of teaching and learning. A program taking a constructivist approach to building knowledge and skills focuses on helping students develop their understanding and make sense of the world.

- **Teachers and students use the EFF Framework to identify, reflect on, and revise their own mental models of adult role performance.**
  Role Maps help students see that roles are "social constructs." Looking at the Role Maps helps students step back from the concrete experience of how they live a particular role to see that there are a variety of ways to carry out the broad areas of responsibility of that role. Learning how other students interpret the Role Maps helps students envision other ways they can carry out their roles. At the same time, the role performance indicators associated with each role and the Skills Wheel help students think about what they might need to learn to change their role behavior.

- **Students use the EFF Framework to examine and clarify prior knowledge in order to construct new meaning.**
  Adult students are not blank slates. They have a wealth of experiences and understandings that are articulated and examined in the process of developing new meaning and understanding. The EFF Framework helps teachers bridge the gap between classroom and real life, providing space for students to bring their prior knowledge and experience into the classroom and examine it in the context of new learning. The Role Maps, Skills Wheel, and Content Standards give students new tools to solve problems, plan, reflect and evaluate, and take responsibility for learning in all parts of their lives.

- **Teachers use the EFF Framework to create opportunities for students to reflect on and monitor their own learning.**
  EFF has drawn on research in cognitive science to recognize the vital role of metacognition. To learn effectively, students' thinking must be made visible to them so they can revise and improve understanding as they work toward reaching their learning goals. Cognitive and metacognitive strategies are explicitly included among the components of performance for each EFF Content Standard in order to provide teachers and students with a reminder to focus on these strategies as part of the learning process. Many teachers also integrate a metacognitive approach to instruction by ending each day/week/project by having students talk or write about which standards they worked on and what they can do now that they couldn't do before.

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"I have found that EFF works very well in my classroom because the students are learning about things that interest them and pertain to their everyday lives. This allows them to connect their new knowledge to previous knowledge. They are not only learning grammar, but also how to use English in ways that are meaningful to them."
— Nancy Villarreal

PROGRAM PRACTICE 4

An approach to assessment based on cognitive science research on adult learning and the development of expertise

In a program implementing Equipped for the Future, participants (staff, students, and volunteers) are intentional about using the EFF Standards and Dimensions of Performance to develop tools and approaches that teachers and students can use to assess progress and results.

In an EFF program, teaching and assessment focus on application of skills in context. Both the Dimensions of Performance and the standards themselves focus teachers and students on building and assessing cognitive and metacognitive strategies for organizing, selecting, and evaluating knowledge. This enables students to meet the standard and use their knowledge to carry out real-world tasks and purposes. Teachers and tutors create tools that enable them to monitor a student's understanding of a subject area and to evaluate

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"In order to teach the thinking strategies, teachers are planning activities that are more constructivist. Instead of 'teaching' the right answers they are planning more activities that facilitate students' exploration of the material/concept and students' coming to their own conclusions."
— Jane Meyer

the range and effectiveness of problem-solving strategies used to accomplish a given activity. They also incorporate more collaborative learning, giving students opportunities to practice monitoring and evaluation strategies.

- **Teachers and students use the EFF Assessment Framework to identify the ways in which students are progressing along a continuum toward expertise within a skill and across skills.**
  The idea of a continuum of performance fits with adult educators' focus on building on the strengths of learners. The Four Dimensions that are central to the EFF performance continuum give teachers and students a common set of key characteristics to pay attention to when evaluating whether a student's ability in a given standard area is sufficiently developed to enable him/her to achieve important goals. EFF recognizes that each individual may not want or need to become expert in every area. Rather, the framework supports gradual development of expertise in areas that fulfill one's purposes and roles.

- **Teachers use the EFF Assessment Framework to construct assessment tasks, rubrics, and other tools for in-program assessment purposes.**
  Teachers in the EFF research sites have been learning how to construct performance tasks they can use to assess how well students can use a skill to accomplish a real-world task. Teachers are learning how to make sure that the tasks are constructed to target the knowledge, skills, and abilities they are trying to assess, including thinking about the evidence they will collect to document how well a student can perform along each of the four dimensions.

  Teachers find that creating a performance task that really works for their students requires that they pay attention to what performance of the task requires, to what their students already know, and to what their students will need to have the opportunity to learn and practice. In this way, constructing performance tasks helps teachers align planning and instruction much more carefully with assessment.

- **Students use the results of performance assessments to monitor their progress and revise their learning goals.**
  EFF teachers try to create as many opportunities as they can for students to develop and practice the metacognitive skill of monitoring their own learning. Students keep their own record of accomplishments on Student Observation Forms that ask for evidence related to each of the four dimensions. Students contribute this documentary evidence in performance

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"About a year ago, I came to a startling revelation about my own teaching...that I really had no idea whether my students were really learning anything, and if they were learning, what was it exactly that they were learning and with what degree of fluency or independence. And most important of all—did the students know what they had learned and could they communicate that to anyone—for instance on a job résumé? ...Now I use the standards to keep me on the right track so these questions can be answered."

— Joani Allen

reviews with their teacher, giving them a more active role in shaping their learning plan.

- **Students identify and share evidence of how they use EFF skills to achieve goals/purposes in their lives.**
  Students review the individual components of the standards to help them assess how well they can use a skill to accomplish a purpose in their lives. Through group discussions grounded in the standards and dimensions of performance, students reflect on what they have learned and how they know they have learned it, enriching their understanding of the relationship between what they know and what they can do.

Integrating the Program Practices in a Real Program

The following profile draws on the experience of Knox County Adult Literacy Program (KCALP) to illustrate how one program is integrating these five program practices. KCALP is a Tennessee program that has been an EFF field-development site for several years and has worked with the EFF Framework in a variety of ways. At the same time, KCALP has been working with the Baldrige Criteria for Performance Excellence and has paid close attention to the ways in which EFF and Baldrige work together to align the program with customer-defined goals and results.

Purposeful. From the first contact, student purposes and goals guide the process. An intake interview explores why students want to enroll in the program and what their initial goals are. After intake, students are assigned to a month-long orientation class called Learning Skills that is designed to support them in taking responsibility for their learning. Learning Skills begins with an assessment process that helps students gain a realistic picture of where they are and what they need to do to grow and succeed. Students build on this understanding through a six-step process in which they further develop the goals they identified on intake. The EFF Purposes and Role Maps are tools used by learners throughout Learning Skills.

Purposeful and Contextual. As students move on to their regular classes, they bring with them a portfolio that includes the products of this six-step planning process. Teachers meet with students individually, review their portfolios, and help with any necessary revisions. This is learning and teaching time for both teacher and learner. The student explains to the teacher his goals and his plan to reach those goals. The teacher learns what the student wants to accomplish and what her needs are. Learners and teachers agree on a plan of action. Students take responsibility for their learning by monitoring the plan. They document goal achievement, noting evidence of how they have met their goals. Teachers send information on students' goals and goal achievement to the

Six-Step Planning Process For Developing Goals

Students will:

1. **Define their goals.**
2. **Write an essay explaining why their goals are important.**
3. **Use the EFF Skills Wheel to determine what skills they need in order to achieve their goals.**
4. **Develop an action plan using the Shewhart Cycle (PDSA—Plan, Do, Study, Act).**
5. **Answer the questions, *"How will I know when I have reached my goal? How can I demonstrate that to someone else?"***
6. **Monitor the plan. *"How is it going? What have I learned?"***

PROGRAM PRACTICE 5

A systematic approach to accountability and program improvement based on meeting student and national goals

In a program implementing Equipped for the Future, participants (staff, students, and volunteers) are intentional about using data about student progress toward EFF Standards and toward students' own learning goals to monitor and improve performance and results across the program.

This program practice refers to a process of continuous program improvement in which achievement of student outcomes is the criterion for judging the effectiveness of all other program practices and components.

program office. Teachers check in with students on a daily basis, asking, *"What has been easy to do? What has been difficult? How can we help?"* Using notes from such check ins, the teacher can identify common skill needs and concerns among students and plan learning activities that address immediate needs and concerns. Knowing common themes of interest facilitates the process of contextualizing instruction.

Constructivist. Teachers in KCALP use a "read, write, discuss" format that supports a constructivist approach to learning. Four questions help students reflect on the meaning of quotes, articles, texts, and the various themes and issues that arise in classes: *What is the author saying? What does it mean to me? Why is it important? How can I use it?* Elements of EFF are also used to frame discussions. The classroom becomes a place where the students can voice their opinions, beliefs, and what specific learning means to their lives. These activities contribute to a constructivist approach at KCALP.

Assessment Based on Cognitive Science Research. KCALP currently assesses progress on the skills that students have identified through standardized tests, with informal teacher assessment and observation, and with evidence of application documented by learners. As EFF Performance levels and benchmarks are developed, the program intends to integrate performance-based assessment approaches based on the four dimensions into their practice.

A Systematic Approach to Program Improvement. KCALP uses the Baldrige Criteria for Performance Excellence as their approach to continuous improvement. The Criteria outline a systematic approach to identifying customer needs, making decisions about how to meet those needs, developing action plans, determining key processes, and deciding how to measure performance. This systematic approach to program improvement has strengthened the program processes and outcomes, focusing the program on aligning organizational goals and objectives to better meet the needs of the adult student.

Implementation of EFF is one part of this systematic, intentional focus on the student as the center of the learning process. The EFF Framework is used to set and document goal achievement and to make connections between student learning and real-life roles. Data is collected on achievement of student goals, literacy-level changes based on standardized tests, number of students promoted out of the program, and student retention.

— Jane Knight

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"I have become more involved up front with instructors in the curriculum and delivery approach. I ask them how they are going to measure learning and when a student has reached a particular goal. I look for instructors who are willing to learn about EFF, willing to explore, and are accepting of the philosophy of EFF. This is an approach I have used as an instructor myself and now, as Director, I can seek out others who also practice student-centered, real-life, learning-based education."

— Brenda Gagne

- **Programs put in place a system to collect and analyze data about student progress in relation to EFF Standards and student learning goals.**
  A continuous program improvement cycle begins with the definition of performance goals for students and for the program. This is followed by efforts to identify sources of evidence and to develop processes to collect, monitor, and evaluate evidence to determine whether or not progress is being made toward student and program goals. The EFF Assessment Framework will provide tools that enable programs to collect data on student progress that are aligned with both student goals and broad national goals.

- **Programs use student progress data to periodically review program components.**
  Data on student performance should be reviewed periodically to consider what can be learned from this data about how well the program is meeting the needs of its student population. Programs using a continuous improvement approach review every component of the program to assure that it is designed to function—and actually functions—in ways that optimally contribute to improved student performance. This effort to align program components with program goals can lead to changes in more than the content and process of instruction. Such program practices as recruitment of students and staff, the nature of professional development provided to staff, and the structure and composition of classes can also change. The EFF Quality Model was developed with an eye to facilitating alignment of program components for improved results.

- **Programs use results of periodic review of data to revise program goals.**
  Data on student performance can also provide a window on whether a program's mission and goals are well aligned with student goals, on the one hand, and state and federal goals, on the other. As neighborhoods change, programs may find themselves aiming to achieve goals that are not appropriate to the needs of prospective students. Similarly, changes in state and federal mandates may leave programs aiming to achieve goals that no longer matter to their funders. Programs that have put in place good systems for collecting and periodically reviewing both internal and external data have the tools to keep up with change.

Outcomes

The Outcomes section of the model contains two ways of looking at the results from EFF:

- changes that occur within the program environment for students, teachers, and programs and
- long-term changes in the lives and learning of adults and in the adult education system.

Outcomes Within Programs

Since implementation of EFF is just beginning, this section of the Quality Model is the most speculative. It is too early in the EFF process to evaluate long-term student or system outcomes. But through the field development process, outcomes within programs have been reported. These outcomes are some of the changes in students, in teachers, and in program structures and processes that we expect to occur as the five key EFF Program Practices described above are implemented. These are the outcomes we will look for in a formal evaluation of EFF. They are based on data collected as part of the field development projects.

"More students are taking greater initiative and participating more actively in the class and program. A sense of community is building, as learners support each other, demonstrate concern and empathy for each other, and even engage in conflict with each other."
— Peter Caron

"Inmates in the local correctional facility are less often sanctioned (in the hole), and the instructor credits the EFF Framework for this because she says they now are able to see/use other options, such as writing to the warden and requesting help through appropriate channels."
— Marcia Anderson

Student Outcomes

Students

- articulate what they know and are able to do in relationship to their goals,
- demonstrate increased proficiency in the use of multiple skills,
- persist in program participation until personal goals are met,
- transfer learning from the classroom to the rest of life, and
- feel increased sense of ownership of their learning and in the program.

When EFF field development sites talk about student outcomes, they report an increased sense of ownership on the part of students. Students feel more in control of their own learning. They make decisions about pace, direction, and content of instruction. There is more student-to-student interaction. Students also are more involved in the operation of programs. Some programs have reported increased student persistence.

Teacher Outcomes

Teachers

- reflect on their own learning goals;
- change their planning processes to focus on learner goals;
- reflect on their own mental models of adult roles, including that of teacher;

- structure instruction using learning theory; and
- use assessment results to evaluate their lessons.

The outcomes that field sites most often identify have to do with teacher change. It is primarily teachers who have been implementing and reporting on EFF, and they report changing their daily practice. They are using EFF in goal setting with students. They have used it to talk to each other about how they are changing their practice. As they design performance tasks, they have created contextualized learning opportunities with their students. It is not surprising that the outcomes they report have to do with changes in their design and evaluation of their lessons and with reevaluation of their roles as teachers.

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"I see more active learning going on in the classroom and more student-to-student interaction. I can rarely walk by a classroom that is silently working individually. There is always talk and a real hum of learning."

— Kim Gass

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"Being involved [in EFF] has reminded me that I need to be conscious and clear with myself about what I am asking the student to do in my class: Is the task or assignment relevant? Is the context of the lesson going to immediately impact the student in a useful way? How do I know that? If not, then why am I asking her to do this?"

— Rebecca Boon

Program Outcomes

Programs

- set goals that reflect learner and national goals,
- structure curriculum around real-life contexts related to students' goals,
- ensure that instructional practices promote meaning making as well as development of skills and knowledge,
- align program components (intake, orientation, counseling, teaching, assessment, staff development) to program goals,
- describe success in terms of real-world results in students' live,
- continuously review program policies and results to assure that they reflect learner needs and goals,
- form community partnerships that reflect common purposes and goals,
- use the EFF Framework in teacher hiring and evaluation, and
- support collaborative staff teams.

The Equipped for the Future Quality Model results in changes for programs as well as for students and teachers. Among the changes programs administrators from field sites have reported are greater connections with community partners, improved consistency of program delivery focused on students goals, and the increased effectiveness of staff teams in planning together and supporting each other's work.

Longer Term Outcomes

On Adults' Lives

Adults will

- achieve the level of expertise needed to perform effectively, to their own satisfaction, in their primary life roles at work, in the family, and in the community;
- recognize new learning needs and be comfortable in taking advantage of learning opportunities; and
- use what they learn to make changes in their lives and to keep up with change.

For the purposes of an evaluation, the effectiveness of EFF will be evaluated against both in-program outcomes and longer term outcomes. Longer term outcomes in the lives of adults who participate as students in EFF programs will need to be identified through future research. This research will look for outcomes such as those noted in the model: achievement of needed expertise, ability to make desired changes, participation in lifelong learning. The full range of longer term outcomes and the indicators of these outcomes have not yet been elaborated.

System Impact

All adults will have access to services that assist them in gaining skills required to

- access information;
- voice their own ideas and opinions;
- take independent action;
- keep up with a changing world; and
- exercise rights and responsibilities as family members, workers, and community members.

For EFF to reach its goals, reform must extend from the classroom, through the program, to the system level. Some of what this system reform might be is discussed in Chapter 5 of *Equipped for the Future Content Standards: What Adults Need to Know and Be able to Do in the 21st Century* (Stein, 2000). The reforms may begin with changes in teaching and learning and program improvement. Eventually, such program changes must include an alignment of state and federal support and requirements to lead to the system impact needed for all adults to have access to the services that will assist them in becoming equipped for the future.

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"As an administrator, I attempt to practice EFF with the entire program. EFF language has allowed us the vehicle to communicate clearly with each other about goals for the program based on the goals identified by the students. We intentionally ask each other how we are relating all instruction to the skills on the wheel and how projects relate to the standards. We plan according to the three roles and we respond to student progress as it relates to their identified strengths. The result is a program [where]... attendance is high because students are receiving instruction that they are able to identify as meaningful.... EFF has changed our program by centering our purpose, our goals, and our effectiveness in providing meaningful instruction for adult learners."

— Terry Kinzel

Quotations in the Program Practices section are from email communications, postings on the EFF discussion list, and EFF field research reports from EFF field research from the following practitioners:

Joani Allen, Terry Kinzel, and Nancy Villarreal
Big Bend Community College
Moses Lake, WA

Marcia Anderson
Adult Literacy Lawrence County
New Castle, PA

Rebecca Boon
Seattle Central Community College
Seattle, WA

Peter Caron
MSAD # 27
Ft. Kent, ME

Brenda Gagné
Noble Adult and Community Education
No. Berwick, ME

Kim Gass
Greeneville City Adult Education Program
Greeneville, TN

David Hamilton
Columbus WORKS
Columbus, OH

Jane Knight
Knox County Adult Literacy Program
Knoxville, TN

Jane Meyer
Canton City Schools ABLE
Canton, OH

Robin Stanton
Bates Community College
Tacoma, WA

References

Ananda, S. (2000, July). *How instructors can support adult learners through performance-based assessment: Equipped for the Future assessment report.* Washington, DC: National Institute for Literacy.

Bransford, J. D., Brown, A. L., & Cocking, R. R. (Eds.). (1999). *How people learn: Brain, mind, experience, and school.* Washington, DC: National Academy Press. (http://www.nap.edu/html/howpeople.html)

Carnevale, A. P., & Porro, J. D. (1994). *Quality education: School reform in the new American economy* (p. 9). Washington, DC: American Society for Training and Development for U.S. Department of Education, OERI.

Donovan, M. S., Bransford, J. D., & Pellegrino, J. W. (Eds.). (1999). *How people learn: Bridging research and practice.* Washington, DC: National Academy Press. (http://books.nap.edu/books/0309065364/html/index.html)

Fosnot, C. T. (1992). *Constructivism: Theory, perspective, and practice.* New York: Teachers College Press.

Gillespie, M. (in press). *Equipped for the Future research to practice notes.* Washington DC: National Institute for Literacy.

Kegan, R. (1994). *In over our heads: The mental demands of modern life.* Cambridge, MA: Harvard University Press.

Lambert, L. (Ed.), & Walker, D. (1995). *The constructivist leader.* New York: Teachers College Press.

Lambert, L., & Walker, D. (1995). Learning and leading theory: A century in the making. In L. Lambert (Ed.) & D. Walker, *The constructivist leader.* New York: Teachers College Press.

Lambert, N. M., & McCombs, B. L. (1998). *How students learn: Reforming schools through learner-centered education.* Washington, DC: American Psychological Association.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge, UK: Cambridge University.

Levesque, K., Bradby, D., & Rossi, K. (1996, May). Using data for program improvement: How do we encourage schools to do it? *Centerfocus, No 12.* Retrieved from http://ncrve.berkeley.edu/CenterFocus/CF12.html

Marzano, R. (1996). Eight questions about implementing standards-based education. *Practical Assessment, Research Education,* ERIC Clearinghouse on Assessment and Evaluation. (http://ericae.net/pare/getvn.asp?v=5+n=6)

Mayer, R. E. (1998). Cognitive theory for educators: What teachers need to know. In N. M. Lambert & B. McCombs (Eds.), *How students learn: Reforming schools through learner-centered education.* Washington, DC: American Psychological Association.

Merrifield, J. (2000). *Building the framework, 1993–1997 Equipped for the Future research report.* Washington, DC: National Institute for Literacy.

National Institute of Standards and Technology. (1998). Malcolm Baldrige National Quality Award—1998—*Education criteria for performance excellence* (p. 35). Gaithersburg, MD: Author.

Pellegrino, J., Chudowsky, N., & Glaser, R. (Eds.). (2001). *Knowing what people know: The science and design of educational assessment.* Washington, DC: National Academy Press.

Purcell-Gates, V., Degener, S., Jacobson, E., & Soler, M. (2000). Affecting change in literacy practices of adult learners: Impact of two dimensions of instruction. Cambridge, MA: National Center for the Study of Adult Learning and Literacy. *NCSALL Reports #17*, p. 56.

Resnick, L. B. (1989). Introduction. In L. B. Resnick (Ed.), *Knowing, learning and instruction: Essays in honor of Robert Glaser* (pp. 1–24). Hillsdale, NJ: Erlbaum.

Scribner, S. (1988, April). *Head and hand: An action approach to thinking.* Paper presented at the annual meeting of the Eastern Psychological Association, Arlington, VA. (ERIC ED 293 999)

Stagg, D. D. (1992). *Alternative approaches to outcomes assessment for postsecondary vocational education.* Berkeley, CA: National Center for Research in Vocational Education.

Stein, S. G. (1995). *Equipped for the Future: A customer-driven vision for adult literacy and lifelong learning.* Washington, DC: National Institute for Literacy.

Stein, S. G. (2000). *Equipped for the Future content standards: What adults need to know and be able to do in the 21st century.* Washington, DC: National Institute for Literacy.

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National Institute for Literacy
1775 I Street NW, Suite 730
Washington, DC 20006-2401

Tel 202-233-2025
Fax 202-233-2050
Web www.nifl.gov

National Institute for Literacy
1775 I Street NW, Suite 730
Washington, DC 20006-2401

Tel 202-233-2025
Fax 202-233-2050
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